查询PAH20012供应商

Nihon Inter Electronics Corporation

THYRISTOR MODULE

200A / 1200V to 1600V

PAT20012 PAT20016

PAH20012 PAH20016

FEATURES

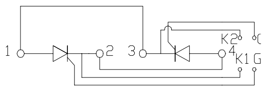
* Isolated Base
* Dual Thyristors or Thyristor and Diode Anti-Parallel Circuit
* High Surge Capability
* UL Recognized, File No. E187184

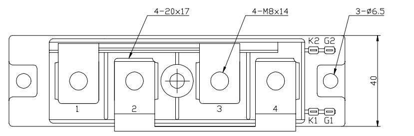
TYPICAL APPLICATIONS

* Rectified For General Use

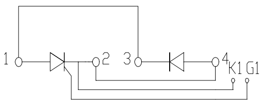
OUTLINE DRAWING

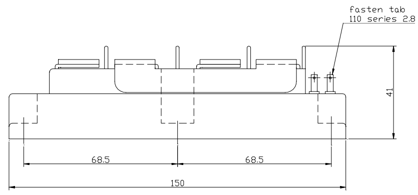
PAT





PAH





Maximum Ratings

Approx Net Weight:500g

Parameter	Symbol	Grade PAT/PAH20012	Grade PAT/PAH20016	Unit
Repetitive Peak Off-State Voltage	V_{DRM}	1200	1600	V
Non Repetitive Peak Off-State Voltage	V_{DSM}	1300	1700	
Repetitive Peak Reverse Voltage	V_{RRM}	1200	1600	V
Non Repetitive Peak Reverse Voltage	V_{RSM}	1300	1700	

Parameter			Conditions	Max Rated Value	Unit
Average Rectified Output Current		$I_{O(AV)}$	50Hz Half Sine Wave condition Tc=75℃	200	A
RMS On-State Current		$I_{T(RMS)}$		314	A
Surge On-State Current		I_{TSM}	50 Hz Half Sine Wave,1Pulse Non-Repetitive	4000	A
I Squared t		I^2t	2msec to 10msec	80000	A^2s
Critical Rate of Turned-On Current		di/dt	V_D=2/3V_{DRM}, I_{TM}=2·I_O, Tj=125℃ I_G=300mA, di_G/dt=0.2A/µs	100	A/µs
Peak Gate Power		P_{GM}		5	W
Average Gate Power		$P_{G(AV)}$		1	W
Peak Gate Current		I_{GM}		2	A
Peak Gate Voltage		V_{GM}		10	V
Peak Gate Reverse Voltage		V_{RGM}		5	V
Operating JunctionTemperature Range		Tjw		-40 to +125	℃
Storage Temperature Range		Tstg		-40 to +125	℃
Isoration Voltage		Viso	Base Plate to Terminals, AC1min	2500	V
Mounting torque	Case mounting	Ftor	M6 Screw	2.5 to 3.5	N•m
	Terminals		M8 Screw	9.0 to 10.0	

Value per 1 Arm

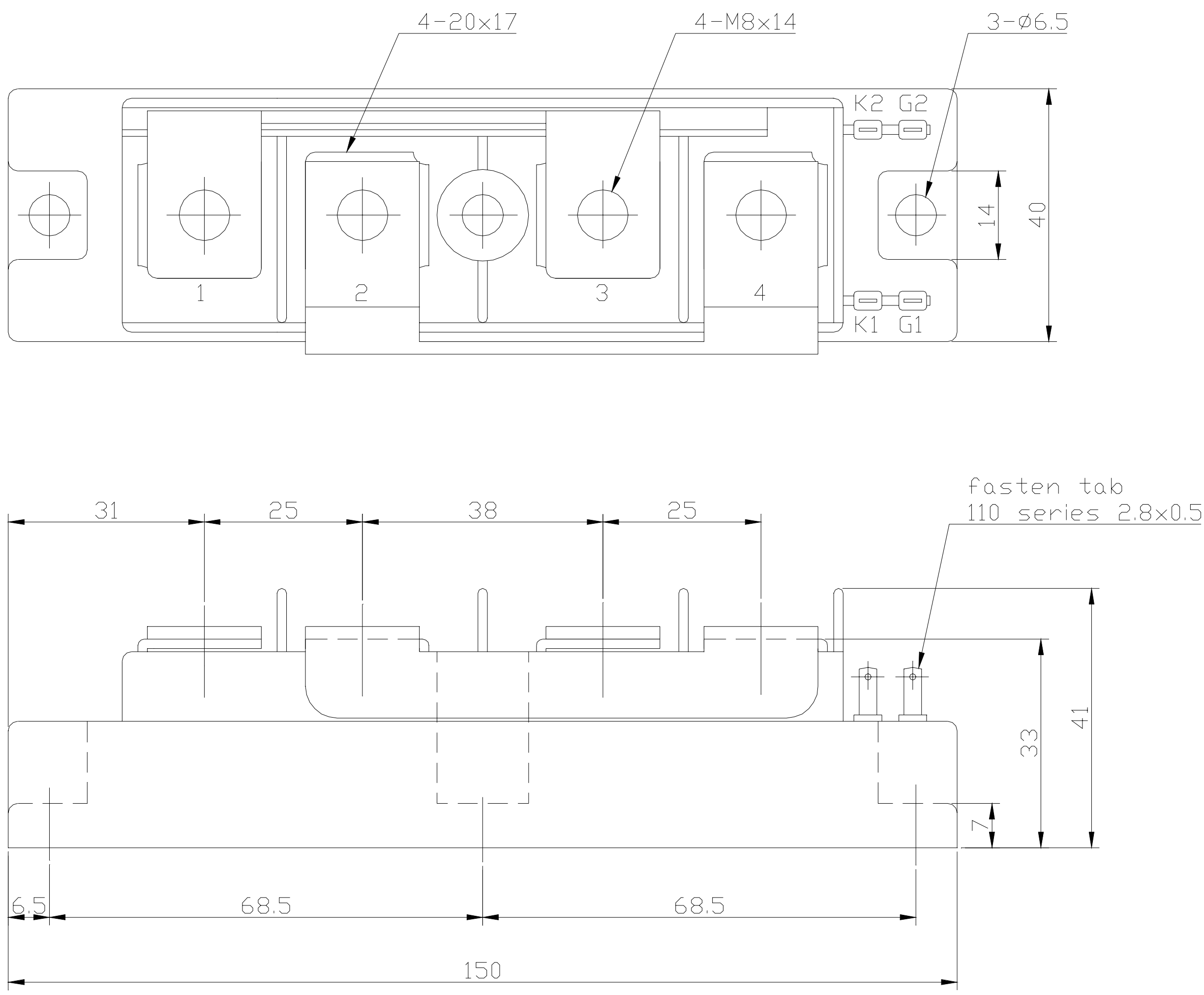
Electrical • Thermal Characteristics

Characteristics	Symbol	Test Conditions		Maximum Value. Min.	Typ.	Max.	Unit
Peak Off-State Current	I_{DM}	V_{DM}= V_{DRM}, Tj= 125℃				80	mA
Peak Reverse Current	I_{RM}	V_{RM}= V_{RRM}, Tj= 125℃				80	mA
Peak Forward Voltage	V_{TM}	I_{TM}= 600A, Tj=25℃				1.28	V
Gate Current to Trigger	I_{GT}	V_D=6V,I_T=1A	Tj=-40℃			300	mA
			Tj=25℃			150	
			Tj=125℃			80	
Gate Voltage to Trigger	V_{GT}	V_D=6V,I_T=1A	Tj=-40℃			5	V
			Tj=25℃			3	
			Tj=125℃			2	
Gate Non-Trigger Voltage	V_{GD}	V_D=2/3V_{DRM} Tj=125℃		0.25			V
Critical Rate of Rise of Off-State Voltage	dv/dt	V_D=2/3V_{DRM} Tj=125℃		500			V/µs
Turn-Off Time	tq	I_{TM}=I_O,V_D=2/3V_{DRM} dv/dt=20V/µs, V_R=100V -di/dt=20A/µs, Tj=125℃			100		µs
Turn-On Time	tgt	V_D=2/3V_{DRM} Tj=125℃ I_G=300mA, di$_G$/dt=0.2A/µs			6		µs
Delay Time	td				2		µs
Rise Time	tr				4		µs
Latching Current	I_L	Tj=25℃			150		mA
Holding Current	I_H	Tj=25℃			100		
Thermal Resistance	Rth(j-c)	Junction to Case				0.2	℃/W
	Rth(c-f)	Base Plate to Heat Sink with Thermal Compound				0.1	

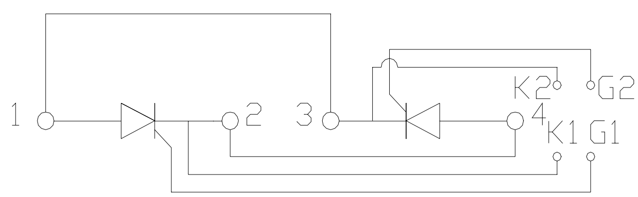
Value Per 1Arm

Nihon Inter Electronics Corporation

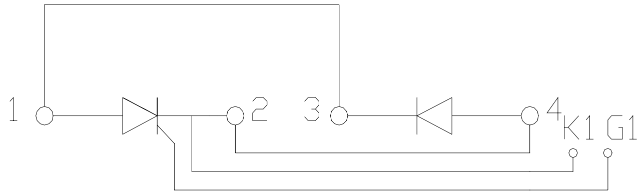
PAT/PAH2001x OUTLINE DRAWING (Dimensions in mm)



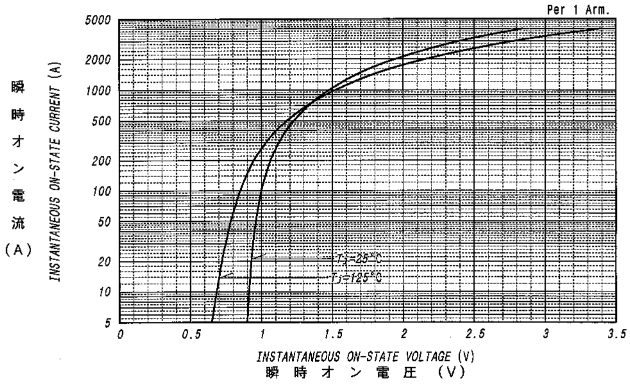
PAT

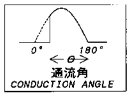


PAH



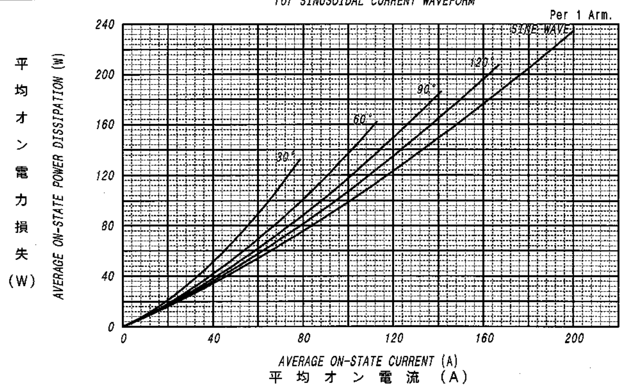
オン電圧特性
ON-STATE CURRENT VS. VOLTAGE

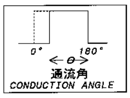




平均オン電力損失特性
AVERAGE ON-STATE POWER DISSIPATION

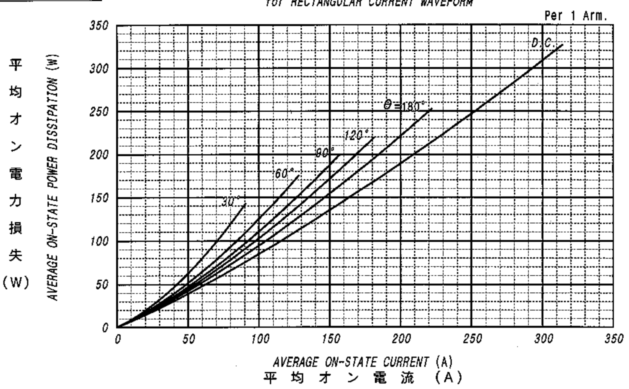
for SINUSOIDAL CURRENT WAVEFORM

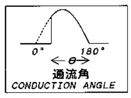




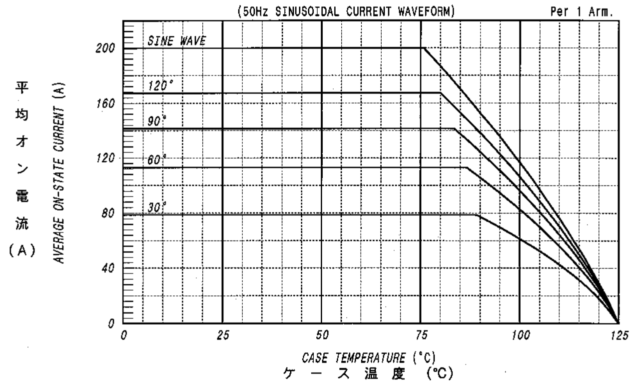
平均オン電力損失特性
AVERAGE ON-STATE POWER DISSIPATION

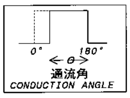
for RECTANGULAR CURRENT WAVEFORM



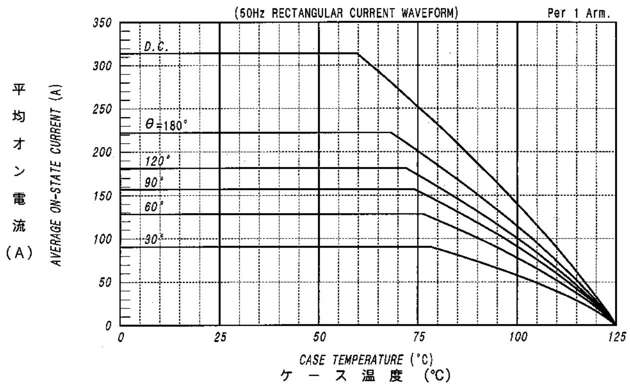


平均オン電流－ケース温度定格
AVERAGE ON-STATE CURRENT VS. CASE TEMPERATURE



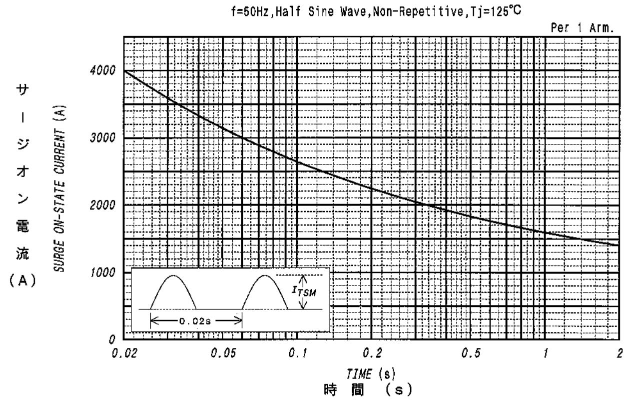


平均オン電流－ケース温度定格
AVERAGE ON-STATE CURRENT VS. CASE TEMPERATURE

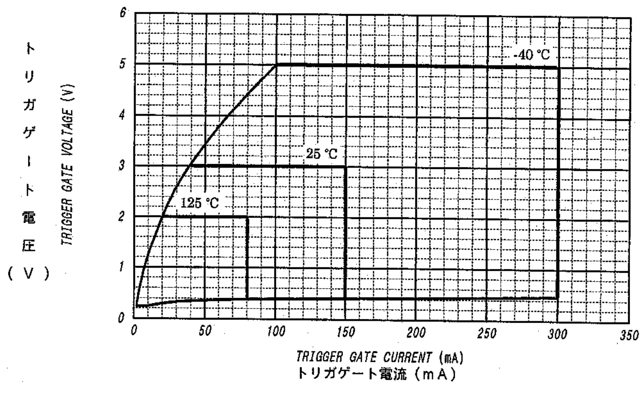


サージオン電流定格
SURGE CURRENT RATINGS

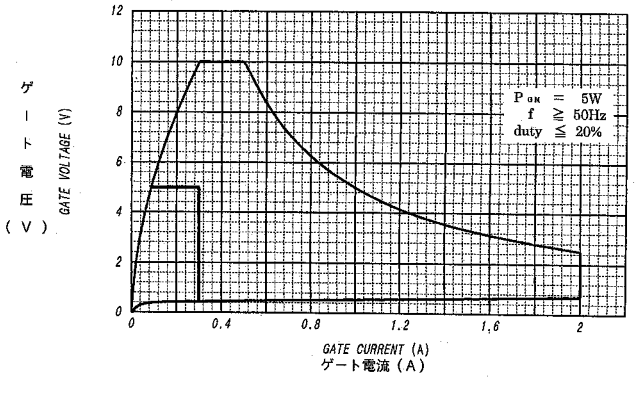
f=50Hz,Half Sine Wave,Non-Repetitive,Tj=125°C

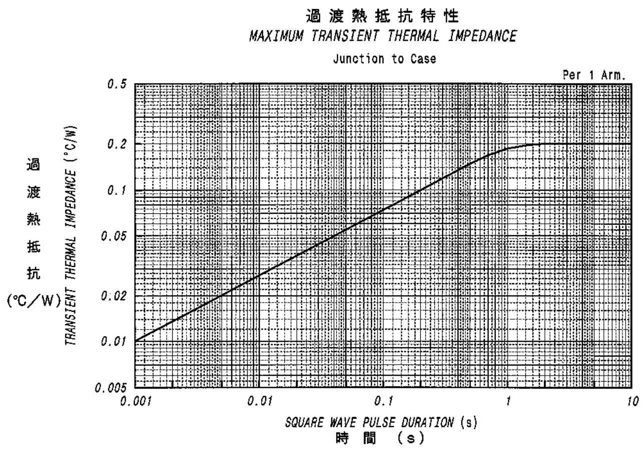


ゲート特性
GATE CHARACTERISTCS



ゲート定格
GATE RATINGS




過渡熱抵抗特性
MAXIMUM TRANSIENT THERMAL IMPEDANCE
Junction to Case
Per 1 Arm.
過渡熱抵抗 (℃/W)
TRANSIENT THERMAL IMPEDANCE (°C/W)
0.5
0.2
0.1
0.05
0.02
0.01
0.005
0.001
0.01
0.1
1
10
SQUARE WAVE PULSE DURATION (s)
時間 (s)